**Communicating what you learned from your investigation into Matter. Is Cornstarch a Solid or Liquid?**

**The Plan**- In our experiment, our plan was to investigate if cornstarch mixed with water would turn into a solid or liquid. The reason we decided to do this was because we didn’t know the effect of cornstarch and water together. We wanted to discover what would happen with an average cooking ingredients, when it was mixed with water. The methods we used where based on websites we discovered while researching around the web for ideas.

<http://www.kidzone.ws/science/cornstarch.htm>

**The results**- the results we got from the cornstarch mixture are that it is a solid and a liquid. When you picked a clump onto your hand it was like a solid. When you squeezed it, it drips down. The interesting thing was when you had the clump in your hand, and put your finger on it, the effect of your finger pressing on it, made the solution startssinking. But when it’s in your hand it’s a solid. This was a really interesting experiment because it was a solid and liquid. Usually the state of matter would only be either a gas, liquid, or solid. As we ran out of time, we decided to put it in the fridge in order to save it for next class, but it became chalk like so we couldn’t use it.

**Figures**-



This picture shows the solution is a liquid. (Left)

The picture (right) shows it’s a solid.

* + - 1. **What you learned about science?** The states of matter usually are three kinds; liquid, solid or gas. But in this caseit is a liquid and solid. I went to the website, where we got the instructions and it says, “A mixture of cornstarch and water make what is known as a suspension.  When you squeeze a Cornstarch Suspension it really feels like a solid because its molecules line up.  But it looks like a liquid and acts like a liquid when no one is pressing on it because the molecules relax.  This is another state of matter, called a suspension (It can act like a liquid, or, when pressed like a solid.).”  I actually learned to open up my mind from my own experiment. I never knew that cornstarch could actually make such an awesome substance. Also that the states of matter could actually be combined together like liquid and solid. What I believe what we could have done to extend our experiment was what a website suggested to try other ideas relating to them; “Heat the mixture and then let it cool. Does it now behave differently? Freeze it and let it thaw. Has it changed? Make a mixture with more water. Try it with less water. How are they different?” from the site <http://www.seed.slb.com/en/scictr/lab/cornstarch/corn_res.htm> so I believe we could have done that too.
      2. **Extra Experiment**
      3. **Second Experiment- Electro Active Slime**  We decided to do an extra experiment, but it was an unsuccessful one. In this experiment, we tried to add more oil or more cornstarch. But the results where not the way we wanted to be. It would be too oily or too gooey. I believe if we tried other sites to have another idea of what would have been a more accurate site, this experiment would have been successful. Due to the limited time we decided to work on another experiment that we were sure to be accurate and preceded on to do it. Unfortunately we did not take any pictures in this experiment, but it looked like cake batter.
      4. **Third Experiment- Borax Goop**
      5. Our last experiment was a huge success, the Borax goop experiment. (Borax is a powder used as a cleaning material) This borax goop is a liquid and the materials we used where water, glue, and borax. Unlike the first experiment this was not a solid and liquid but only a solid. The reason we wanted to do this was because our second experiment didn’t work and we wanted to move on to a new analysis. Our final decision was borax goop was a solid unlike the cornstarch one and felt like silly putty.

The picture (left) was the borax goop when we were still mixing it together.

The picture (right) was the finish product.

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